1:Marshall E-5 (1952-1953) 1959 FX10 Bushmen FX10
Kung

584 Boys are always considerably older than girls before their parents betroth them. [805] We never knew the precise age of a /Kung because they reckon time from one season to the next, not in years, and do not keep track of a person's age by any measurement. Boys appear to be usually around twelve to fourteen or fifteen before they are [868] betrothed. At this age their fathers begin to take them on the long hard hunts for the [883] big animals which supply the people's meat and begin their serious hunting training.

As to girls, wives are in such demand in this polygynous society that the parents of boys have their eyes upon every girl baby and may say to the parents of an unborn infant, 'If it is a girl, let us have her for our son.' It seems to be more usual, however, to betroth the girls when they are about two to five or six. The boys wait patiently for long years for their fiancées to grow up.

We wondered what would happen if, when the time at last came for the marriage, the boy or girl should refuse the parents' choice. It appears that they seldom do. A boy is usually too eager to get a wife. To refuse the betrothed might mean he would have to wait for years and years again for a girl baby to grow up. The girls are usually too young to protest but it sometimes happens that one does. /Kung 593 parents are exceedingly protective and permissive with their children, and delight 855 in them, especially in their infancy. I have sometimes seen an older child scolded or 861 snapped at by an impatient mother but I never saw a child severely punished. No hard work and few, if any, regular chores are demanded of dependent children. The same protectiveness and permissiveness were apparent in parents' lenience with respect to their girls' betrothals. They complied with the girls' wishes.

The marriage may take place when the parents agree. The age of the young people 582 varies greatly. For the girl, there are no definite age or other requirements. The girl need not, for instance, show physical signs of maturity. When the important Ceremony of First Menstruation is performed, the girl may have been married for years. Bau, who was married to Tsamgao in 1951, did not have her first child for six years. /Nai was married to /Gunda in May 1953. She menstruated for the first time in March 1959. To be married as young as that is not at all unusual, but we have known several girls to be somewhat older.

The parents explain that when the girls marry young they 'get used to' their 582 husbands. I am sure there is a great deal in this and I am sure it strongly affects the 593 relations of husbands and wives, but I had insufficient opportunity to observe eight- or nine-year-old brides with teen-age husbands, and insufficient means, through interpreters, to grasp the nature of their relationship. What is the young husband like to a girl child? The friendly, gentle old man, Demi, said to me, 'They enjoy their youth together.'

593 The young couples are expected not to have sexual intercourse till the girls are 'big 834 enough', informants said, and the boys must not force the girls. If a girl complained to her parents and the parents took her back and sent the young husband away, he might have to wait for years again for another bride to grow up. The /Kung are [123] prevented by their incest taboos and their modesty from speaking freely about sex and I learned nothing about the actual sexual practices of the young couples. /Nai and her young husband, /Gunda, had only one good kaross between them; they slept 513 together bundled in it, feet to feet. Bau and Tsamgao slept quite apart—at different 593 fires—when we observed them in 1952. In 1953 they slept at their own fire, apart, she

/159 cont./

278 752 [411] Poisoned arrows shot into the chest and abdomen are described as unconditionally deadly. Arrow wounds on extremities, as well as very superficial ones, are supposed to be curable under certain circumstances if immediate help is provided.

[751] There is no inoculation against arrow poison.

[827] An older Auin suffering from badly inflamed eyes attributed this illness to an arrow wound he had received many years earlier. His statement, of course, cannot be verified.

165 Malaria is endemic and annually exacts many lives. The number of cases resulting in death was especially great in 1908-1909. Whole settlements are supposed to have died out. Epidemics were unknown even to the "oldest people."

Venereal diseases are blessings of civilization, but evidently not yet widespread.

731 Famine actually prevails every year toward the end of the dry season, especially if the preceding rainy season has been poor. During this time, almost all the Auin are emaciated to skeletons. Death by hunger is not supposed to /160/ occur. After all, the Bushman always finds something to eat, even if it is only grass seeds.

756 The so-called doctors decidedly possess great experience in medical matters, which, however, does not prevent them from practicing considerable charlatanism (see Section T).

W. Time Reckoning, Astonomy

●805 The day is divided according to the position of the sun. Certain time segments are indicated with great exactitude according to the position of the sun. If one asks a Bushman, "How far is it to the watering place?" he will point to the place in the sky that the sun will have reached by the time one gets there.

The concept of the month is known (gnui, "month").

The relation of the solar year to lunar months is unknown.

The Auin divides up the year, for which, incidentally, he has no definite, but rather only a very vague concept, as follows:

/160 cont./

805 cold dry season,
warm dry season,
short rainy season,
rainy season.

Just as these various seasons of the year tend to be very irregular in the Kalahari, the Auin's division of the year also is quite variable.

821 There is only one designation, a collective name, for the starry sky.

173 I have not been able to detect any traces of a "history." Only events going back at most two generations are transmitted as an oral tradition.

172 The Auin know nothing about the Bushman drawings. At the watering place Kazupitzaub between Oas and Olifantskluft, in other words, in the Auin region, there are supposedly Bushman drawings on rock walls. The Auin call these drawings the "work of Satan." I should observe that this expression was given me by an interpreter who was unable to supply me with a better translation of the Bushman concept. In case I should once again go to this region, I shall report on this matter.

173 In their own opinion, the Auin have been living in the region they now occupy "as long as there have been human beings."

X. Counting and Calculating

802 Fingers and toes are used for counting.

Five is expressed by the word for hand, ten by two hands, 15 by two hands and one foot, 20 by two hands and two feet.

Among about 20 Rietfontein Auin, there was only one who could count beyond 20. I cannot say, however, whether this man may not have hit upon the idea through my suggestion. He counted up to 40.

WESTERN OTJIMPOLO VELD

[9 cont.]

586 Up to the birth of the first child, the marriage is dissolvable, but not thereafter. Monogamy is the rule; where
595 there is polygamy, the first wife is the "head wife." The eldest
596 brother of the head wife is the family head. The boys belong to
611 the family of the wife, and the daughters to the family of the father.

582 The strictest exogamy prevails. Son and daughter may marry neither into the father's kin group nor into the mother's
[587] kin group. On the other hand, a young widow is usually married by one of her brothers-in-law.

551 The following kin-group names were reported to me: !Nui-a, Dai, aben, orasi, Gombe, χ'am, χ'am-Kha.

805 The following times of the day are differentiated:

eruba, time before sunrise.

!khoasa, time of sunrise (N. khoa-am = to open, that is, the door for the sun is opened).

sorésa, "the sun shines."

sorésa ≠kam go, "the young sun goes," breakfast time. In effect, below the tropics one has the impression that the sun, after it has stood on the horizon for a while, moves toward the zenith with great speed.

sorésa !khoai go, "the sun goes back." Noon.

//gui-sa, "it declines (lies down)." Afternoon.

[512] ≠khai-am-go, "to rise and go." After hunting or searching for veldkost, the Bushmen usually take a rest before it is time to go home and start cooking (late afternoon).

≠kha-go, "to go through." (The sun goes through the gate of the night.) Dusk, sunset.

!khui-sa, to be evening.

dschu-ba, night (N. tsuχub).

821 These Bushmen have the idea that the old sun dies every night and a new, young sun appears the next morning. That the
[171] moon dies every month and is resurrected again is a notion so widespread in Africa that it is really unnecessary to make special mention of it.

805 The year begins when a new rainy season sets in.

//hauba, "storms rise." Rainy season.

WESTERN OTJIMPOLO VELD
DAMA

[9 cont.]

805 shauba, cold season (N. sáob).

!kn-aba, hot season (N. !nái, warm).

535 Among dances, an ostrich and an ape dance were mentioned to me.

123 The studies, which began so promisingly, came to an end because I was evidently unable to present the village chief with enough presents. One evening a boy appeared and told me that the Bushmen had "had to go hunting." I continued to wait a number of days for the !Kung called by Mr. Eaddes. The messengers returned with the news that they had found no one. Another Sunday coat for the village mayor and some yellow money for the Bushmen, and priceless material could have been obtained.

[107] Chapter 3

The Dama Bushmen from the Palm Bush East of the Ondonga [Ndonga]

173 According to their tradition, these Bushmen came from Herero country. Hence they represent the connecting link between the "Saan" in the Gobabis district and the Hei//om [Heikum] of the north. The people as a whole designate themselves as Daman = the wealthy. The horde around Oshigambo calls itself //Huru-Khái. They call their dialect Cháraba. I do not believe that they live far in the interior of the Otjimpolo Veld. They have an enormous respect for the !Kung. The outermost cattle posts of the Ondonga probably coincide pretty much with the boundaries of their territory. A number of them are Bantuized and have small physiques. The others engage in hunting and supply the black farmers with the flesh of wild game, hides, ostrich egg beads, and poison. They serve as beaters on the great hunts of Chief Martin. At the court they count for nothing. The farmers like to see them. Little acts of assistance, a sack of berries or veldkost, soften the heart of the black housewife, so that here, as in Uukualuthi [among the Kualuthi?], there are a number of do-nothings who are nonetheless gladly received.

101
131
177
142
439
648

[26 cont.]

142 The athletic type thus represents the best realization of the human type among the races.

Since, from the day of conception on, environmental influences are predominantly of a harmful nature, the average type finally arrived at is the type formed by the average harmful effects, which, on the one hand, are of a hereditary and constitutional nature, and, on the other hand, are conditional effects during the individual's lifetime. The more unfavorable the living conditions are, the greater will be the harmful effect coefficient, and the more the average physical type will approach the asthenic. Only environmental improvement, brought about by high civilization, permits athletic forms to develop in considerable numbers.

According to our schema, we may designate the Bushmen as asthenic on the average, and the best developed among them [146] as respiratory. In the case of many male individuals, there is an ability for considerable fat accumulation, and on the farms I encountered a number of Bushmen who had adapted themselves to a flour diet and had considerable body weight.

[146] The digestive type thus certainly does occur among them, even though we must keep in mind that the diet, which is rich in meat and poor in carbohydrates, counteracts its development.

5. The Course of the Day

805 The !Kung Bushmen divide the 24 hour day into seven segments, which are:

[192] /gam χ'ǎ-o-a, dawn.
/gam do di /gii, time of sunrise.
!nai /kho, (the sun) is in the middle.
ha ti ǂnáu, (the sun) will go down.
χ'ǎ-o ti ǂnáu, the sun is now asleep.
/gu gǎ djo-o, one can no longer see the people because it is dark.
!a ds ĩ, midnight.

512 The division of the day varies somewhat with the season of the year. With the exception of the so-called hot season,

[26 cont.]

512 from about August 20th to the end of December, the following daily routine is normally observed. Before dawn, it becomes very cold, the people wake up, and the boys stir up the fire and put on it the remains of the evening meal. The old people move closer to the fire and go on sleeping until the sun comes up. Then they have their breakfast, which consists of the remains of the [462] evening meal. The able men now go hunting. The women continue to sit around the fire for awhile and nurse their children. [462] At about 10 o'clock the women and children, as well as the girls, go out in a group to look for veldkost. Almost every woman [482] old enough to bear children carries a child on her back, while a second child often rides on her shoulders. The smaller boys stay at home and help the old people, who get up about an hour later [361] to fetch water. The huts are never located close to the water: 1. because people get sick close to the water; 2. because the lions come there; 3. because the game would be frightened away. The watering place itself is visited quite irregularly, because in disturbed times the enemy lurks there, and occasionally also the police. The male and female doctors go into the bush, usually not very far, alone or only with a disciple, to gather medicine. Around four o'clock in the afternoon the women come back and begin to cook. Around this time, too, the men begin [264] to return with the spoils of the hunt. When the sun goes down, they all sit by the fire and eat. Each family has its own fire. Then some will continue to chat for awhile, while others go to sleep, and gradually it becomes quiet.

[264] They do not eat at noon. From eleven to four o'clock the camp is deserted, and even the old people sleep somewhere in the forest. The hunters and the women collecting veldkost also [27] take a long midday rest during the hot afternoon hours. During the hot season, on the other hand, they set out soon after midnight to hunt and search for veldkost, because later in the day the sand is too hot to walk on.

6. The Divisions of the Year

805 The Bushmen reckon time according to full moons, for example, agreeing to meet after three or four full moons, and

[27 cont.]

805 the like, but they have only ten months. They name them after terrestrial phenomena.

!Kai dsáa	It is cold (winter)	June
gama /éi	The grass burns	July-August
!hoá sori	It is hot	September-October
!u shē	The rain begins	November
ǂkhŏ shē	The trees bloom	December
/hō //gāi	It is raining	January
!Khan //gai	The veldkost is coming up	February
!nâ -mâ	The veldkost is ripe	March
ao ré //kum //ká	The rain is stopping	April
!hoá //gai	The year is at an end	May

They reckon also from harvest to harvest.

221 The most beautiful time in the life of the Bushman is March and April. Even those who live on the farms hurry into the wilderness at that time. At certain places where there are many fruit trees, such as the marula, the friendly kin groups gather from far and wide. Here the young men look for brides, and there is much dancing, because at this time the women are not tired from seeking veldkost which is now to be found everywhere. Hunting yields less at this time, since the game has water and pasture everywhere.

Soon, however, the leaves fall, the bush forest becomes red and yellow, the migratory birds fly northward, and then the first cold nights set in. Now the "Dsao" (spirits of sickness) come and [753] bring sickness to the chest. At the end of May and the beginning of July [sic] the first frosts set in. Now the Bushmen move to the watering places, which stay open for a long time. The nights now [374] become torture. Burns on the skin of the chest and abdomen oc- [513] cur frequently, because the Bushmen now lie very close to the fire to sleep. Around this time, some of the kin groups already begin to suffer distress, because the game moves to other regions where there is still some pasture. In July the grass is finally dry [224] enough so that it can be set afire. Now the entire steppe burns. The young grass again attracts the game, hunting improves. The hot season is the worst period; the resting places of the game are quite uncertain, veldkost becomes increasingly scant, and the

[39 cont.]

411 The head is made of a quadrangular piece of iron 30 to 40 centimeters long and set into the shaft with a short connective piece. The shaft is reinforced at this point by a winding of iron wire. [40] [Fig. 12 appears here.]

[41] Musical Instruments

534 [439] Large dance drums are very popular, but are not made by the !Kung themselves; they are obtained in trade from the Okawango. Once, when I purchased such a drum from a trader of ostrich egg beads in the region of Kuntsas (the drum always belongs to a specific person; collective ownership of utilitarian objects is unknown among the Bushmen), he asked me to let him keep the drum until evening so that each man would be able to drum once more. The dance rattles made of fruit are no longer to be found except in very small numbers. The !Kung are also supposed to possess wooden trumpets used on special occasions. I have never seen them.

413 [304] Finally a small number of special utilitarian objects should be mentioned. In practicing their calling, the doctors use cupping glasses, made of antelope horn, and blunt little sticks to knock out teeth. Poisons and medicines are now manufactured and cooked in empty tin cans; in fact, tin cans and tin gasoline containers are gradually becoming universal objects even among the Bushmen. Messenger sticks or calendar sticks are made on special occasions; these are little staffs or little boards with one or two rows of holes. For example, if I tell the Bushman that I will return in five months, he will draw a string through five of the holes and knot it. At each full moon, the string is drawn back one hole.

177 415 278 805 211

12. Social Organization

622 [614] [688] [623] Each kin group has a chief, whose position is hereditary. To be sure, his powers are insignificant because one's whole life is public, so to speak, and the authority of the old men is so great that the decisions arrived at are essentially agreements BETWEEN THE CHIEF AND THE OTHER OLD MEN.

[TEXT CONTINUES ON p. 25]

[41 cont.]

622 between the chief and the other old men. When the village chief dies, it is not his eldest son, but the eldest son of his sister [Figs. 13 and 14 appear here] who takes over the village.

58 There are certain marriage prohibitions and requirements, which are illustrated by the following schema.

[534]

Fig. 13. Dance Drum of the !Kung (Kuntsas). (Greatly reduced.)

[805]
[211]

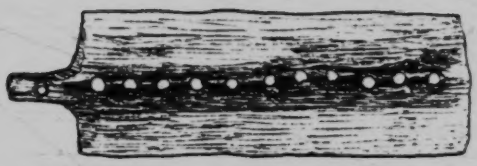

Fig. 14. Calendar Board of the !Kung (actual size [as shown in the original text]).

Father's brother X wife	Father X mother	Father's sister X husband
Brother--sister	A--sister	Cousin (male) -- cousin (female

If A is taken as an example, the children of his father's sister are his cousins. Marriage with these cousins is prohibited. On the other hand, A must marry the father's brother's daughter if she so desires. The man on his part, however, cannot force the

9: Thomas T-5 (1951-1955)1959
FX10 Bushmen FX10
Kung

lifted her head and her face showed in the firelight; her eyes shone quite yellow and she looked dangerous, like a leopard, as she glared in the direction of his voice.

On my way home I passed Lazy Kwi's house, which his wife had started in his absence, and as she had planned a large scherm and had already built the framework, many large branches stuck upright in the ground, but had not yet covered it with grass, I could see Lazy Kwi inside. He was between me and his fire, and in silhouette against the red light he looked like a creature in a cage, for he was peering through the lattice of branches to see who was passing by. I stopped to show who I was, and noticed a bird roasting by his fire, a little duck which must have been snared by Lazy Kwi's old father-in-law. It was plucked and trussed and tied to a stick which was pushed into the ground so that the duck hung over the coals. It looked about done to me, so I asked Lazy Kwi, who was obviously alone with it, awake only to tend it, if it wasn't ready, and Lazy Kwi looked first at me, then at the duck, then up at the sky, and shook his head. He was timing it by a star, he explained, and the star had risen but wasn't high enough yet, so I said good-night and went home and left him in his lattice; and just before I went to sleep I heard great shouts of laughter, for Toma had found someone who hadn't heard the lion story and was telling it again.

136
278 arrows: Diamphidia nigro-ornata and Polycada flexuosa. These are described in Chapter VI.

Climate

132
[133] The Kalahari Desert has a mean elevation of 3,000 feet above sea level and lies within the summer rainfall area of Southern Africa. These factors contribute to a climatic regime that is characterized by hot summers with a three to four month rainy season, and by moderate to cool winters without rainfall.

132
805 Five seasons may be distinguished in the Dobe area. Most Bushmen recognize five (although some divide the year into eight or more seasons) and their shheme will be followed here.

Seasons

1. !huma (spring rains) -- The Bushman year begins in October or November with the onset of the first rains. These consist of light convectional thundershowers that often fall on one area and miss other areas entirely. The first rains have the effect of triggering growth and reproduction in the flora and fauna and may overnight transform the landscape from a parched and dry state to one of lush greenery.

2. bara (main summer rains) -- These rains fall from December to March and coincide with the season of plentiful food. There is a wide variation from year to year in the

132 805 dates of onset and termination of the main rains. For instance, in 1963-64, the major rains were concentrated in an eight-day period in late November and early December and were very light during the next three months. In the following rainy season, 1964-65, the major rains came later. They were only just beginning when we left the study area in [137] January, 1965. During the period of the main rains, the [312] major summer foods (fruits, berries, melons) make their [262] appearance, and there is standing water in the molapos far from the permanent wells.

3. /obe (autumn) -- The autumn season is brief. In [312] 1964, it fell in April after the rains had ceased. The weather remains warm and the high evaporation rates rapidly dry out the pools of summer water.

4. !gum (winter) -- This cold dry season extends from May through August. It is heralded by a sharp drop in nightly temperatures and during 1964 the Dobe area experienced six weeks of freezing or near-freezing nights in June and July. The days are clear and, by tropical standards, cool, often characterized by strong dessicating winds from the south and west with gusts estimated at up to 40 knots. [312] Water is available only at the permanent wells and plant foods [262] become increasingly scarce as the season progresses.

5. !ga (early spring) -- This season begins in late

132 August with a rapid increase in daily temperatures and ends
• 805 in October or November with the onset of the first rains. It
[312] is a hot dry period during which water and food supply reach
[262] their annual low levels. However, the increasing day-length appears to prepare the flora and fauna for the season of reproduction which is triggered by the first rains.

Rainfall

Until 1961 there was no weather station in the central !Kung interior. In that year a rain gauge and other recording instruments were established at Tsumkhwe, South West Africa, a government station 35 miles west of Dobe. The data from this station are not available to the author. The only other sources of rainfall data are the author's fifteen-month series of measurements made at Dobe (1963-64) and the long-term records from stations on the periphery of the Kalahari. The peripheral stations and their rainfall are listed below:

South West Africa

Epukiro - (200 miles southwest of Dobe) - 13.2 inches per annum.

Grootfontein - (200 miles west of Dobe and 1,000 feet higher in elevation) - 17.3 inches per annum.

Bechuanaland Protectorate

Ghanzi - (175 miles south of Dobe) - 18.5 inches per annum.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

immune to the effects of snake and scorpion poison.[1] One of these animals is killed, and its poison, diluted with water and urine, is rubbed in small quantities into small cuts made in the skin, or the poison sacs are pulped and boiled, and then swallowed in small doses. Schinz records an experiment made by himself on a Bushman doctor claiming this immunity.[2] He selected twelve scorpions and placed them, by means of forceps, on different parts of the man's body—hands, legs, arms, mouth, and testicles. Almost all of them stung the flesh deeply once or twice, in every instance causing a large drop of white matter to appear; then they crawled about leisurely, but made no further attempts at stinging. "The old man maintained that he felt no pain, and I have no reason to distrust him, as he would hardly have allowed himself to be stung by scorpions on the most sensitive parts of his body, merely to satisfy my curiosity, if the poison would have had any effects on him; even a full hour after our attempt the spots where he had been stung showed not the slightest change." This experiment seems therefore to show that there may be some foundation to the claim of immunity. The inoculation was apparently made in this case during the apprenticeship of the "doctor", under the direction of his master. Our main authorities on the Bushmen do not mention this practice at all, but I have myself spoken to several detribalized Bushmen and Nama in Little Namaqualand who claimed a similar immunity. Unfortunately I neglected to inquire further into the matter, beyond ascertaining the means of immunization.

Knowledge of Times and Seasons

In their system of time-reckoning the Bushmen make use chiefly of meteorological elements, based on recurrent changes in wind and weather, and of astronomical elements, based on observations of the sun, stars, and moon. Their larger divisions of time are the seasons, which, owing to their effect on the food supply and on the movements of the people, assume a pronounced importance in Bushman life. The division of the seasons is established by the rainfall. The Cape Bushmen distinguished four seasons, rendered by Bleek and Lloyd in the English equivalents of spring, summer, autumn, and winter, but the exact meaning of the native terms is not given.

[1] Campbell, *Journey in S. Africa*, 441; Thompson, *Travels in S. Africa*, i, 399; Cornell, *The Glamour of Prospecting*, 232.
[2] Op. cit., 395–6.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

184 805 The Naron have three seasons: spring, when the birds mate and the first flowers come, from about August to October; summer, when it is hot and the rain falls, or is expected, from November to March; and winter, or the cold time, from April to July. The !O Kung also have three seasons: the cold dry time from about April to September, the first rains from then to about November, and the real rainy season from about December to March or April. The Auen, Kung, and Heikum, on the other hand, distinguish four seasons: the cold dry season (winter), the small or first rainy season (early spring), the hot, dry season (spring and early summer), and the big or second rainy season (late summer). When all the seasons have passed, a year is finished; but there is no clear conception of the year as a period of time, nor do they reckon in years. Mothers can tell in which season their babies were born, and for three or four years know how many seasons ago it was, but after that they get confused. Hence, for instance, no person knows his positive age, although his comparative age as regards the other members of the family is always well established.[1]

184 805 821 The Naron observe the sun sufficiently to know that it makes a shorter path in winter than in summer, but apparently the stars foretell the coming of the seasons better. When the Pleiades rise just before dawn, the cold is due; when they come before midnight, spring is at hand. Besides the Pleiades the Naron also have names for the Southern Cross, Orion, the Milky Way, and the Great Bear, which is just visible at Sandfontein; and they know when each constellation will rise and set in the different seasons.[2]

184 821 The other North-Western Bushmen apparently take no special interest in the stars. The !O Kung, for instance, as we have seen, speak of all the stars as *//gaua*'s fires, and have no separate names for any of them; and the same seems to be true of the Kung and Heikum. The Cape Bushmen, on the other hand, were close observers of the movements of the stars and constellations, and had names for a great many of them. Thus Archernar is the "Star-digging-stick's stone" or the "Digging-stick's stone of Canopus", while Canopus itself is the "Bushman's rice star"; the Pointers to the Southern Cross are male lions; α, β, and γ Crucis are lionesses; Aldebaran is a male hartebeest, and Orion is a female hartebeest; Procyon a male

[1] D. F. Bleek, *Comparative Vocabularies*, passim; *idem*, "Bushmen of Central Angola," 110; *idem*, *Naron*, 39; Kaufmann, "Die Auin," 160; Fourie, "Bushmen of S.W.A.," 99.
[2] D. F. Bleek, *Naron*, loc. cit.

2: Schapera E-4, 5 (no date) 1930
FX13 Hottentot
Bushmen FX10

eland, Castor and Pollux his wives; the Magellanic Clouds a steenbok; Orion's sword three male tortoises hung upon a stick, his belt three female tortoises so hung, etc. As these names indicate, there is a good deal of folklore centring in the stars, and indeed a considerable part of the vast collections of Cape Bushman lore made by Bleek and Lloyd relate to the heavenly bodies, which are regarded as once having been men or animals before being transformed into their present state. In one tale, for instance, it is related that a girl of the early race (preceding the Bushmen) wished for a little light, so that the people might see to return home by night. She therefore threw wood-ashes into the sky and these became the Milky Way. In another, again, it is told how a girl, at the time of her puberty seclusion, saw some people eating together at a dassie's house of branches. As a result they and the house, fixed by her looks, became stars in the sky, where they are now to be seen as the Corona Australis.[1]

The Hiechware of the Eastern Kalahari, according to Dornan, also "have considerable acquaintance with various groups or prominent stars, and have names for them", but the only one mentioned by him is the Southern Cross, referred to as the "giraffe star" and said to be somewhat like this animal in appearance.[2]

For shorter lengths of time the Bushmen go by the Moon, but they make no attempt to reckon how many moons there are in the year or in a season.[3] They observe the phases of the Moon closely, but seem to have no division of time into anything corresponding to weeks, although they readily pick up the European system of weeks when working for white people, and will come regularly on the seventh day for tobacco, etc. Otherwise, in their intercourse with white people, the wage, if not given daily, is demanded at the New Moon.[4]

The day is apparently divided according to the position of the sun, but no names have been recorded for any fixed divisions or parts of the day.

The notion of time is also used to indicate distance, for which there are no special units. Generally distance is reckoned by the time it

[1] Bleek, *Bushman Texts*, 10 sq.

[2] *Pygmies and Bushmen*, 165.

[3] Lebzelter says, however ("Bei den !Kuñ-Buschleuten," 15) that the Eastern Kung have a "vegetation year" of 10 months. The year is reckoned from one veldkos harvest to another. He omits to give any further details.

[4] D. F. Bleek, *Naron*, loc. cit.; *idem*, "Bushmen of Central Angola," loc. cit.; Kaufmann, loc. cit.

2: Schapera E-4, 5 (no date)1930
FX13 Hottentot
Bushmen FX10

804 805 823 takes to reach the place. If, for instance, a Bushman is asked how far a certain waterhole is, he points to the part of the sky which the sun will have reached by the time one gets to that waterhole; or, if it is far, he says: "One night on the way," or "two", etc.; or, again, if asked the length of a journey, he will name the places at which he slept or will sleep, touching a finger to his lips for each, then hold up the fingers, saying: "So many nights" (not days).[1]

802 177 In counting, they use only the numerals one and two quite freely. Three they sometimes use, taking the Nama word for it, although they are more apt to speak of "two and one" than "three". For anything above three they generally make use of the word "many", although by the Northern Bushmen Nama or Bantu numerals may sometimes by substituted. These higher numerals, however, are evidently picked up from their neighbours by ear, and repeated without much consideration of their value, as, says Miss Bleek, a child of three will count in imitation of its seniors, varying the sequence of numerals each time. In some cases, among both the Cape 802 Bushmen and several of the North-Western tribes, such formations [803] are also found as 4 = 2 + 2, 5 = 2 + 2 + 1, and so on up to ten. The numeral system of the Bushmen is thus essentially binary in principle. Occasionally, however, modifications occur suggestive of a quinary system. Thus in Naron the words for "four" mean "two fingers and two fingers", but "five" is "hand" (sometimes, however 2 + 2 + 1 fingers), "ten" is "both hands", "fifteen" "both hands, one foot"; and the same system occurs in Auen. As these words indicate, the Bushmen count larger numbers on their fingers. In counting, they begin with the little finger of the left hand, touching each finger in turn on the lips, then continue in the same manner from the thumb of the right hand. As a rule, it may be added, nothing that they want to count exceeds ten, indeed, hardly ever reaches that numeral![2]

[1] D. F. Bleek, *Naron*, 38; *idem*, "Bushmen of Central Angola," loc. cit.; Kaufmann, loc. cit.

[2] D. F. Bleek, loc. cit.; Kaufmann, loc. cit.; cf. Schmidl, "Zahl und Zählen in Afrika," *Mitt. anthrop. Ges. Wien*, xlv (1915), pp. 194–5, for a useful summary sketch of Bushman numeral systems.

[pp. 221-446 not processed for the FX10 Bushmen file. see category 116, FX13 Hottentot]